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## REMARKS

HEDMAN & COSTIGAN, PC

Reconsideration of the application is requested in view of the amendments to the specification and claims and the remarks presented herein.

The claims in the application are claims 1 to 6, 8 to 11 and 18 to 22, all other claims being cancelled. The specification has been amended to refer to the French priority application. Claim 10 has been amended to overcome the Examiner's objections as she suggested. The trademarks are believed to be properly identified. Claims 8 and 9 stand allowed and claims 2 and 3 are drawn to allowable subject matter.

Claims 4 and 5 were rejected under 35 USC 101 and the amendment thereof as suggested by the Examiner is believed to obviate this rejection.

Claims 1, 10 and 19 were rejected under 35 USC 112, second paragraph as being indefinite. Claims 1 and 19 were rejected as being indefinite in "or one of its fragments" as it was not clear if "it" referred to the polynucleotide or SEQ.ID.NO. 8. Claim 10 was deemed indefinite as it was not clear if "it" referred to SEQ.ID.NO.9 or SEQ.ID.NO. 13 or both.

Applicants traverse these rejections since amended claim 1 makes clear that the isolated polynucleotide is that of SEQ.ID.NO. 8 or one of its fragment and claim 10 has been amended to clarify that the fragments include both polynucleotide sequences.

Therefore, withdrawal of these rejections is requested.

Claims 1, 10 and 19 were rejected under 35 USC 112, first paragraph. The Examiner states that the specification discloses generally isolated fragments but only exemplifies a few fragments.

Applicants traverse this ground of rejection since it is believed that the specification is of sufficient scope to support the scope of "fragments" since the specification and the parent application Serial No. 10/470,112 which has been allowed to define the fragments adequately. The allowed application claims a protein (named "heterocarpin") having anti-cancer activity. This protein has been first obtained by extraction plant cells. Its complete sequence remained unknown up to the filing of the present application.

A subject of the present application is the polynucleotide of the sequence SEQ.ID.NO. 8 as well as its fragment of sequence SEQ.ID.NO. 9 encoding the heterocarpine.

The previous patent application comprises experimental data showing the anticancer activity of the protein. Based on these data, Applicants expect the protein to be useful as active ingredient as well as its polynucleotide to be useful in gene therapy. Therefore, withdrawal of this rejection is requested. In view of the amendment to the claims and the above remarks, it is believed that the claims point out Applicants' patentable contribution. Therefore, reconsideration of the application is requested.

Respectfully submitted,

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CAM:mlp Enclosures

## **CERTIFICATION OF FACSIMILE TRANSMISSION**

I hereby certify that this paper is being facsimile transmitted to the Patent and Trademark Office on the date shown below.

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